

Fig. 6B 19nt (3'uu) 51A 51B

The Notes

POREGRUN

-ucuugauguacuccccucg-uu (SEQ ID NO:29)

uu-agaacuacaugaggggagc- (SEQ ID NO:30)

19nt (3'TT) 70A 5'ucuugauguacuccccucg-TT (SEQ ID NO:31 70B 3'- TT-agaacuacaugaggggagc- (SEQ ID NO:32)
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-acuugauguacuccccucc-TT (SEQ ID NO:33)

19nt with 1MM on both sites

71A 71B

TT-ugaacuacaugaggggagg- (SEQ ID NO:34)

-aguugauguacuccccugc-TT (SEQ ID NO:35) TT-ucaacuacaugaggggacg- (SEQ ID NO:36) 19nt with 2MM on both sites 72A 5'- -aguugauguacu 72B 3'- TT-ucaacuacauga

Fig. 6A

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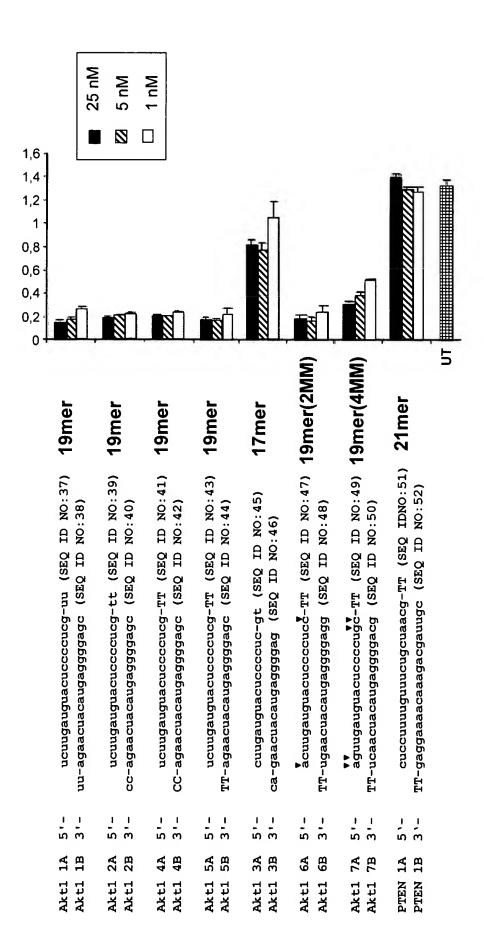
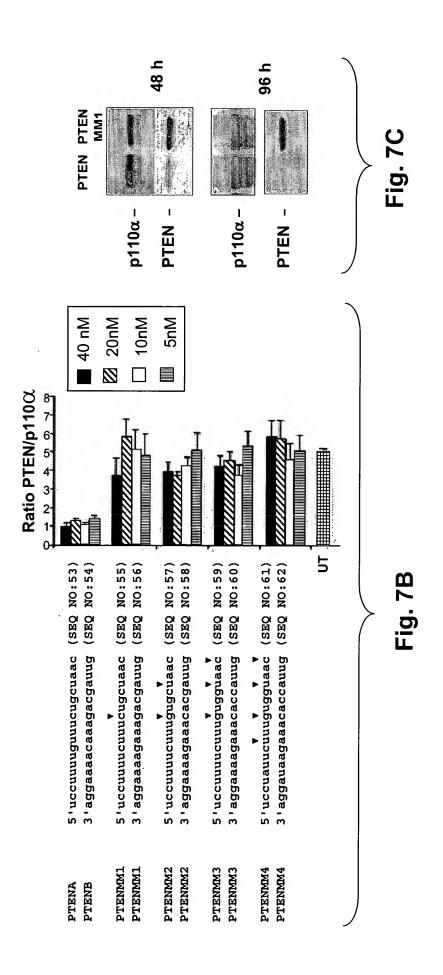


FIG. 7A



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## Fig. 8B

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NH2-cuccuuuuguuucugcuaacg-TT-NH2 (SEQ ID NO:65) cuccuuuuguuucugcuaacg-TT-NH2 (SEQ ID NO:70) iB-cuccuuuuguuucugcuaacg-TT-iB (SEQ ID NO:63) 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:66) 3'-iB-TT-gaggaaaacaaagacgauugc-iB (SEQ ID NO:64) cuccuuuuguuucugcuaacg-TT (SEQ ID NO:67) 3'-NH2-TT-gaggaaaacaaagacgauugc-(SEQ ID NO:71) gaggaaaacaaagacgauugc-TT (SEQ ID NO:69) cuccuuuuguuucugcuaacg-TT (SEQ ID NO:9) cuccuuuuguuucugcuaacg- (SEQ ID NO:13) gaggaaaacaaagacgauugc- (SEQ ID NO:14) 5'-TT-cuccuuuuguuucugcuaacg- (SEQ ID NO:17) 3'- gaggaaaacaaagacgauugc-TT (SEQ ID NO:6 3'- TT-gaggaaaacaaagacgauugc (SEQ ID NO:68) 3'-TT-gaggaaaacaaagacgauugc (SEQ ID NO:10) 2'-0-Methyl modified with 2-deoxy at each end Only RNA with 2-deoxy at each 5' end 30A 5'-TT-cuccuuuuguuucugcua 30B 3'- gaggaaaacaaagacga NH2 groups at each 3'end and 2-deoxy inverted abasic on both ends and 2TT NH2groups at both ends AND 2-deoxy 5,-3'-Only RNA 18A 28A 28B 18B 24A 24B 26B

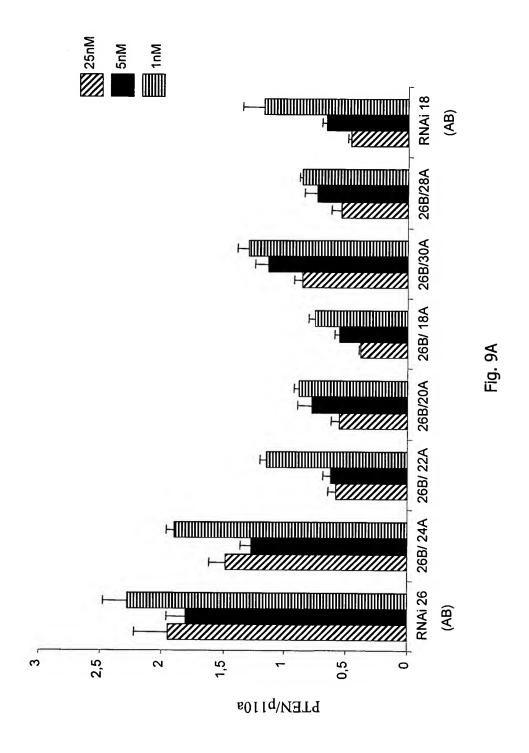


FIG. 9B 26A 26B	5'- NH2-cuccuuuuguuucugcuaacg-TT-NH2 (SEQ ID NO:72) 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:77)	
24A 26B	5'- iB-cuccuuuuguuucugcuaacg-TT-iB (SEQ ID NO:73) 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:77)	
22A 26B	5'- 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:74)	
20A 26B	5'- cuccuuuuguuucugcuaacg-TT-NH2 (SEQ ID NO:75) 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:77)	
18A 26B	5'- 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:77)	
30A 26B	5'- TT-cuccuuuuguuucugcuaacg- (SEQ ID NO:76) 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:77)	
28A 26B	5'- 3'-NH2-TT-gaggaaaacaaagacgauugc-NH2 (SEQ ID NO:77)	
18A 18B	5'- cuccuuuuguuucugcuaacg-TT (SEQ ID NO:78) 3'- TT-gaggaaaacaaagacgauugc (SEQ ID NO:79)	
FIG. 9C	-nnnnnnnnnnn-tt NH2-nnnnnnnnnnn-NH2 functional	
	-nnnnnnnnnnn-tt-NH2 NH2-nnnnnnnnnnnnn-NH2 functional	
	NH2-nnnnnnnnnnnn-tt-NH2 tt-nnnnnnnnnnnn-tt not functional	

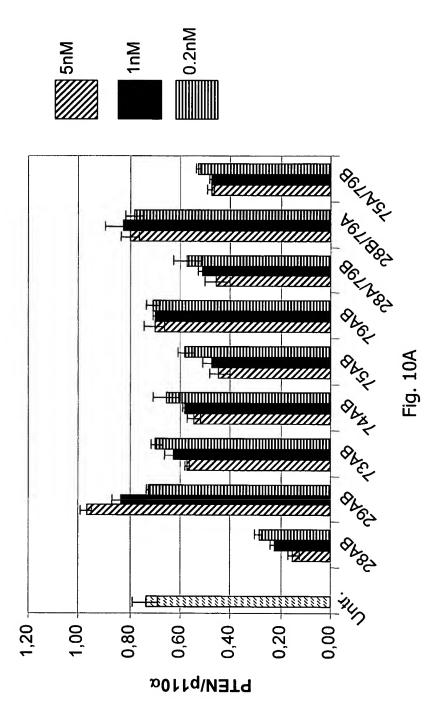
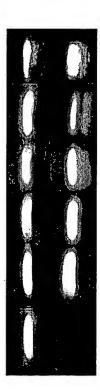


Fig. 10

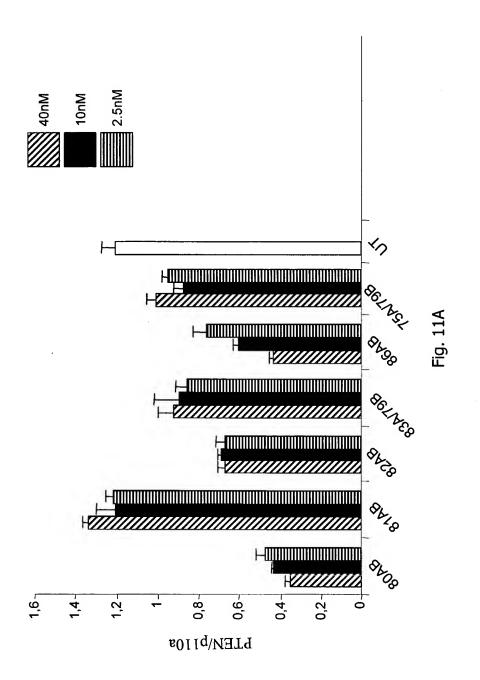
## INPUT

2h Serum



## 28AB 79AB 73AB 74AB 75AB 28A/79B

9		7			
ည	<b>RNA</b> 28A	Bold	Italics 5'-	represents 2.0-methyl cuccuuuuguuucugcuaacg- (	(SEQ ID NO:13)
	28B		3 -		(SEQ ID NO:14)
	29A		- , 5	cuccuuuucuuugugcuaacg (S	(SEQ ID NO:81)
	29B		3 ' -	gaggaaaacaaacacganugc (S	(SEQ ID NO:82)
	73A		5 -	cu <b>ccuuuuguuucugcuaa</b> cg- (	(SEQ ID NO:83)
	73B		3 -	-ga <b>gaaaacaaagacga</b> uugc- (	(SEQ ID NO:84)
	74A		5'-	cuccuuuuguuucugcuaacg- (	(SEQ ID NO:85)
	74B		31-		(SEQ ID NO:86)
	75A		5'-	cuccuu <b>uuguuucug</b> cuaacg- (	(SEQ ID NO:87)
	75B		31-	,	(SEQ ID NO:88)
	79A		5.	cuccuuuuguuucugcuaacg- (	(SEQ ID NO:89)
	79B		31-	-gaggaaaacaaagacgauugc- (	(SEQ ID NO:90)
	28A		5'-	cuccunungunucugcuaacg- (	(SEQ ID NO:80)
	79B		3,-	1	(SEQ ID NO:90)
	79A		- 1.5	cuccuuuuguuucugcuaacg-	(SEQ ID NO:89)
	28B		3 ' -	gaggaaaacaaagacganugc- (	(SEQ ID NO:14)
	75A		5'-	cuccuu <b>nnannucud</b> cuaacd-	(SEQ ID NO:87)
	79B		3'-		(SEQ ID NO:90)



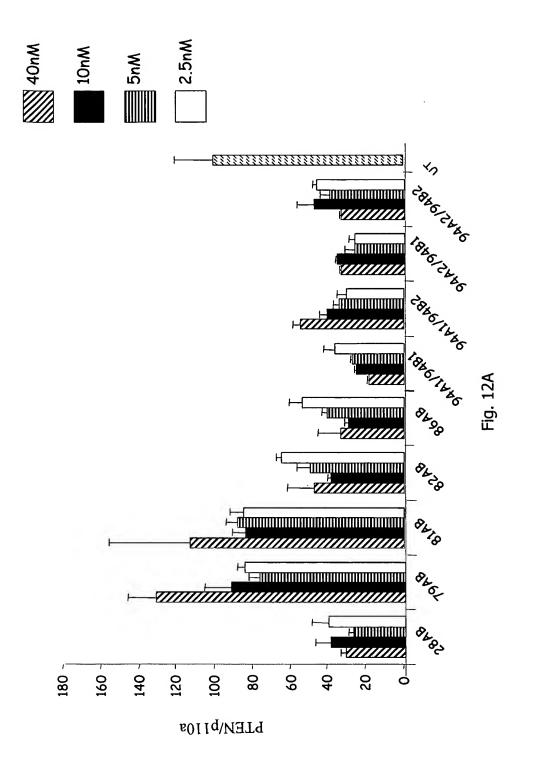
g. 11B INPUT

2h Serum

80AB 82AB 86AB 75A 79B

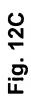
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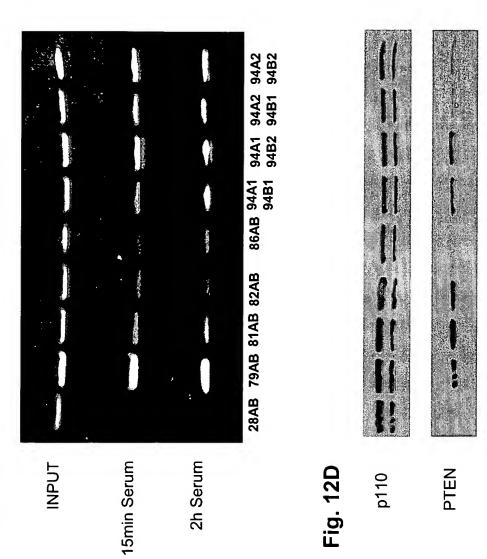
	(SEQ ID NO:91)	(SEQ ID NO:92)	(SEQ ID NO:93)	(SEQ ID NO:94)	(SEQ ID NO:95)	(SEQ ID NO:96)	(SEQ ID NO:97)	(SEQ ID NO:90)	(SEQ ID NO:98)	(SEQ ID NO:99)	(SEQ ID NO:100)	(SEQ ID NO:90)
Bold Italics represents 2'0-methyl	cuccuuuuguuucugcuaacg- (S	-gaggaaaacaaagacgauugc- (S	cuccuuuuguuucugcuaacg- (S)	-gaggaaaaca <b>aagacganugc</b> - (S	cuccuuuuguuucugcuaacg- (S)	<b>gaggaaaacaa</b> agacganugc- (S)	cuccuuu <b>uguuuc</b> ugcuaacg- (S)	-gaggaaaacaaagacgauugc- (S)	cuccuuuuguuucugcuaacg-	-gaggaaacaaagacganngc-	cuccuu <b>uuguuuc</b> ugcuaacg- (S)	-gaggaaaacaaagacgauugc- (S)
Bold Italics	5.	3	5'-	3,7	5'-	3'-	5'-	3	51-	3	51-	31-
C RNA	80A	80B	81A	81B	82A	82B	83A	79B	86A	86B	. 75A	79B

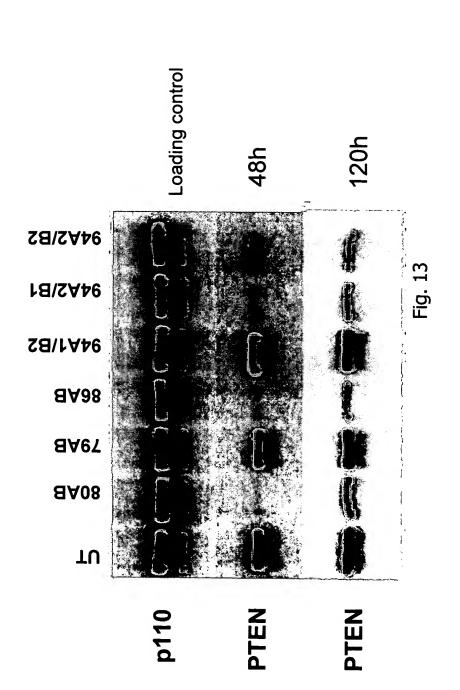


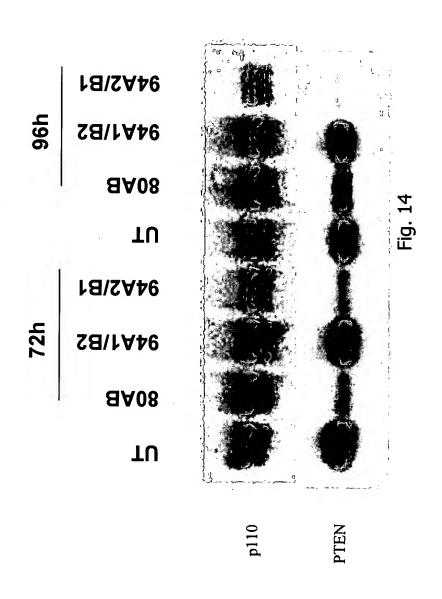
(SEQ ID NO:101) (SEQ ID NO:102)	SEQ ID NO:103) SEQ ID NO:104)	SEQ ID NO:105) SEQ ID NO:106)	SEQ ID NO:107) SEQ ID NO:108)	SEQ ID NO:109) SEQ ID NO:110)	SEQ ID NO:111) SEQ ID NO:112)	SEQ ID NO:113) SEQ ID NO:114)	(SEQ ID NO:115) (SEQ ID NO:116)	(SEQ ID NO:117) (SEQ ID NO:118)
represents 2' O-methyl cuccuuuuguuucugcuaacg- (S qaqqaaaacaaaqacqauuqc- (S		<pre>cuccuuuuguuucugcuaacg- (S gaggaaaacaaagacgauugc- (S</pre>	cuccuuuugu <b>uucugcuaacg-</b> (S <b>gaggaaaacaa</b> agacgauugc- (S	cucc <b>uuuugu</b> uucug <i>c</i> uaa <i>cg-</i> ( <i>gagg</i> aaaaca <i>aagac</i> gauugc- (	cuccuuuuguuucugcuaacg- ( gaggaaaacaaagacgauugc- (	cuccuuuuguuucugcuaacg- ( gaggaaaacaaagacgauugc- (	cuccuuuguuucugcuaacg gaggaaaacaaagacgauugc-	cuccununguuncugcuaacg gaggaaacaaagacganugc
Bold Italics 5'- 3'-	7 N W	2. E	3.5	7. E	3.1	3.5	3.7.	5'- 3'-
<b>RNA Bold</b> 28A 28B	79A 79B	81A 81B	82A 82B	86A 86B	94A1 94B1	94A1 94B2	94A2 94B1	94A2 94B2

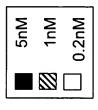
Fig. 126

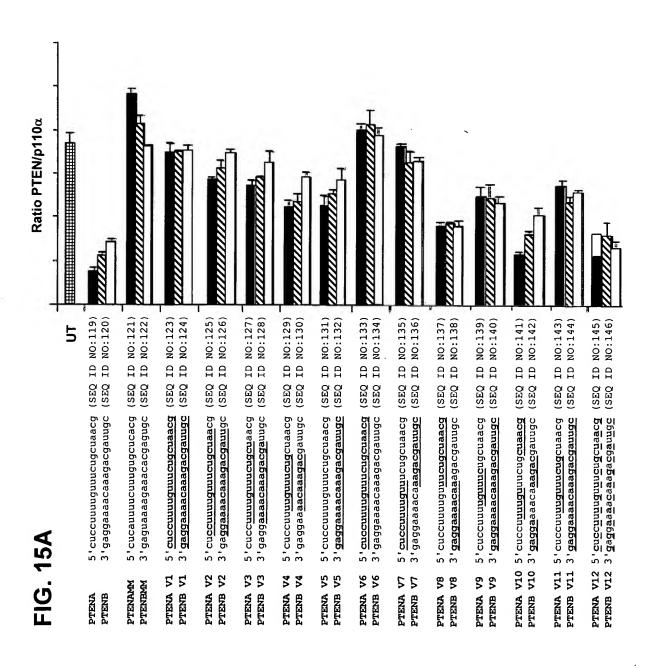


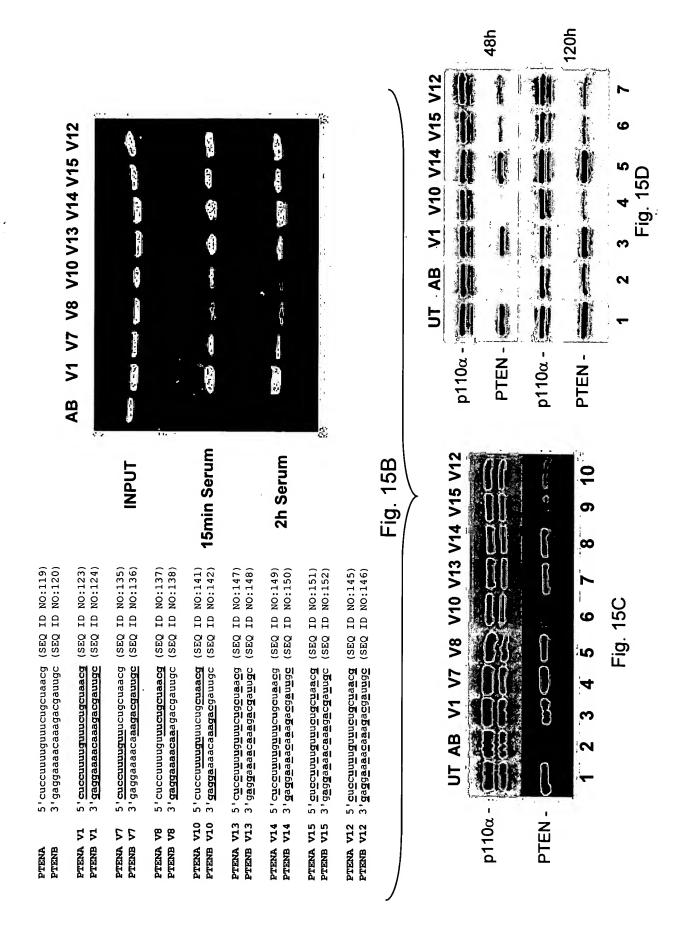












UT V2 V3 V4 V5 V6						
3)	P110α -	Akt 1	AKT 2	P*- Akt-		
TT (SEQ ID NO:153	SEQ ID NO:155)	SEQ ID NO:157)	(SEQ ID NO:159)	SEQ ID NO:161)	SEQ ID NO:163)	
(SEQ ID NO: 154)	SEQ ID NO:156)	SEQ ID NO:158)	(SEQ ID NO:160)	SEQ ID NO:162)	SEQ ID NO:164)	
5'ucuugauguacucccucg-TT (SEQ ID NO:153)	5'ucuugauguacucccucg (SEQ ID NO:155)	5'u <u>cuugauguacuccceueg</u> (SEQ ID NO:157)	5'u <u>cumgauguacucccoucg</u> (SEQ ID NO:159)	5' <u>ucuugauguacucccucg</u> (SEQ ID NO:161)	5' <u>ucuugauguacucccucg</u> (SEQ ID NO:163)	
5'TT-agaacuacaugagggagc (SEQ ID NO: 154)	3'agaacuacaugagggagc (SEQ ID NO:156)	3'a <u>gaacuacaugagggag</u> c (SEQ ID NO:158)	3' <u>agaacuacaugagggagg</u> (SEQ ID NO:160)	3'aga <u>acuacaugagggag</u> c (SEQ ID NO:162)	3' <u>agaacuacaugaggggagc</u> (SEQ ID NO:164)	
Aktla VI	Aktla V2	Aktia V3	Aktia V4	Aktla V5	Aktla V6	
Aktle VI	Aktlb V2	Aktib V3	Aktib V4	Aktle V5	Aktla V6	

Fia. 16A

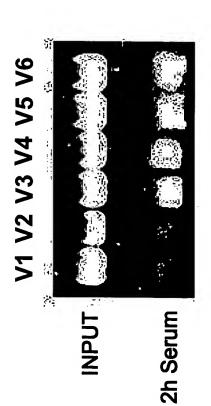
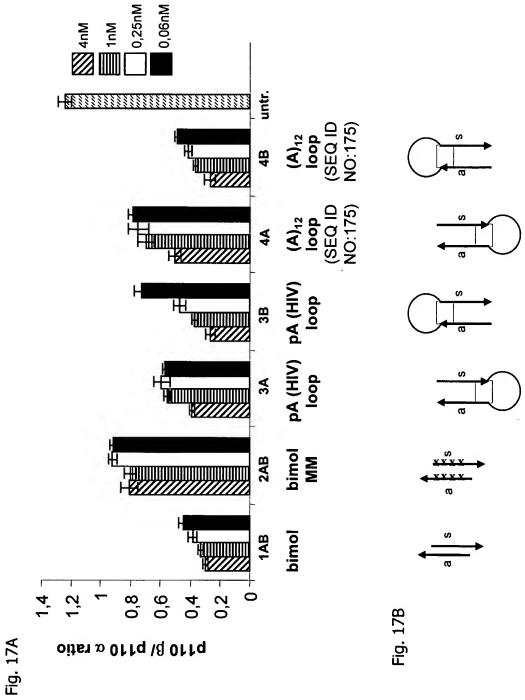
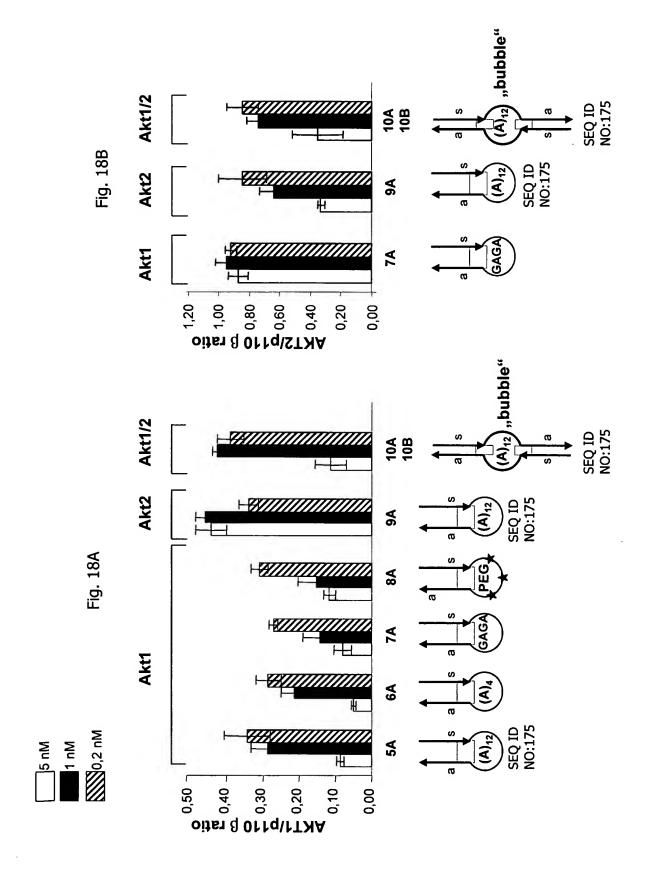


Fig. 16

UT V2 V3 V4 V5 V6				
	P110α -	P*. Akt -		
(SEQ ID NO:165)	(SEQ ID NO:167)	(SEQ ID NO:169)	(SEQ ID NO:171)	(SEQ ID NO:173)
(SEQ ID NO:166)	(SEQ ID NO:168)	(SEQ ID NO:170)	(SEQ ID NO:172)	(SEQ ID NO:174)
5'aauuccagugguucauucc (SEQ ID NO:165)	5'a <u>auuccagugguucauuc</u> c (SEQ ID NO:167)	5'a <u>a</u> u <u>uccagugguucauuc</u> c (SEQ ID NO:169)	5'aauuccagugguucauucc (SEQ ID NO:171)	5' <u>aauuccagugguucauucc</u> (SEQ ID NO:173)
3'uuaaggucaccaaguaagg (SEQ ID NO:166)	3'u <u>uaaggucaccaaguaag</u> g (SEQ ID NO:168)	3' <u>uuaaggucaccaagguaagg</u> (SEQ ID NO:170)	3'uuaaggucaccaaguaagg (SEQ ID NO:172)	3' <u>uuaaggucaccaaguaagg</u> (SEQ ID NO:174)
P110B V2	P1108 V3	P1108 V4	P1108 V5	P1108 V6
P110B V2	P1108 V3	P1108 V4	P1108 V5	P1108 V6

Fig. 16(





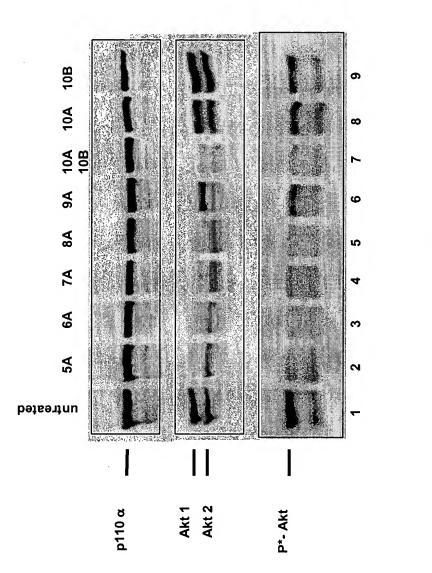


Fig. 18(